REMARKS

Claims 1, 10-11, 15 and 29-30 are pending in the application. Claims 1, 10, 15, 29 and 30 have been amended. The specification has been amended to correct minor typographical errors. The Examiner is thanked for receiving the undersigned attorney's telephone call on September 14, 2006 to discuss the latest office action.

Claims 1, 10-11, 15 and 29-30 have been rejected under 35 USC 112, first paragraph as allegedly not enabled. Applicants respectfully traverse this rejection.

The Examiner's comments have been considered and are appreciated. The present claims have been amended to claim a method of increasing IL-2 production in lymphocytes or T cells in a patient in vivo (claims 1, 10, 11, 15) or ex vivo (claims 29 and 30). Normal IL2 production in T Cells is important. T Cells from patients with SLE have a greatly reduced production of IL2. Returning T Cells to normal IL-2 function has been considered a priority for treating SLE. (*See Herndon, et al. "Direct transfer of p65 into T lymphocytes from systemic lupus erythematosus patients leads to increased levels of interleukin-2 promoter activity, clinical Immunology May 2002.* Cited in Form 1449, filed 9/23/04).

Applicants have demonstrated that the production of IL-2 in T Cells in patients with SLE is greatly reduced and CREM production is greatly increased (Fig. 1A, 1B, 1D). Applicants have also demonstrated that the introduction of anti-sense CREM into lymphocytes from a patient with SLE operates to decrease CREM production and increase IL-2 production in the T Cells (see Fig. 3, 5A and 6). Applicants have also shown that the reason for this is that a significant amount of CREM binds to the IL2

promoter in live SLE T cells (Fig. 2). Applicants have shown that antisense CREM enhances the activity of the IL2 promoter (Fig. 4, 4A, 4B, 4C, 5A).

Further, on page 11, it states:

"The cAMP response element modulator (CREM) has been shown by the inventors to bind specifically to the -180-site of the interleukin-2 promoter in vitro. CREM protein was found increased in T cells of patients with systemic lupus erythematosus (SLE), and it is considered responsible for the decreased production of IL-2. The inventors have found that transcriptional upregulation is responsible for the increased CREM protein levels and that CREM binds to the IL-2 promoter in live SLE T cells. The inventors have found that suppression of the expression of CREM mRNA and protein by an anti-sense CREM plasmid, which was forced to express in SLE T cells by electroporation, resulted in decreased CREM protein binding to the IL-2 promoter and increased expression of IL-2 mRNA. The inventors have found that anti-sense constructs can be used to effectively eliminate the expression of a transcriptional repressor. This approach can be used therapeutically in conditions where increased production of IL-2 is desired for the treatment of SLE."

The inventors have shown that the upregulation of IL2 in SLE T cells can be achieved. With the knowledge that SLE T cells are lacking in IL2, this upregulation accomplishment is important and useful in the advancement of SLE understanding and treatment.

The present specification indicates that lymphocytes are leukophoresed, i.e. removed from a SLE patient by an apparatus known in the art and widely used to collect platelets in blood banks. The lymphocytes are then transfected with the appropriate vector and reintroduced into the body through the vein. The art of transfecting is well known (*See Herndon, supra*) and the practice of removing lymphocytes for treatment

and reintroduction is well known in the art. Returning T cells that are functioning normally would not be regarded to be dangerous to one of ordinary skill in the art.

In summary, the required teachings that the up-regulation of IL-2 is possible in SLE T cells which have been shown to be deficient in IL-2 have been demonstrated. The technology for reintroducing treated T cells back into the body is available. Therefore, it is respectfully submitted that the present claims, as amended, are enabled under section 112, first paragraph for increasing IL-2 production in SLE T Cells both in vivo and ex vivo.

The present description, including figures and examples indicate that the claimed invention can be predictably practiced given the guidance provided in the specification and the prior art.

Reconsideration and allowance are respectfully requested.

Respectfully submitted,

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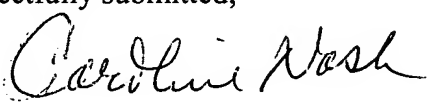
By 

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